

University of Massachusetts Occasional Papers in Linguistics

Volume 24 *UMOP 22: New Perspectives on
Language Acquisition*

Article 6

1998

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Schaeffer, Jeannette (1998) "The interaction of syntax and pragmatics in the acquisition of scrambling," *University of Massachusetts Occasional Papers in Linguistics*: Vol. 24 , Article 6.
Available at: <https://scholarworks.umass.edu/umop/vol24/iss1/6>

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The interaction of syntax and pragmatics in the acquisition of scrambling

Jeannette Schaeffer

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1. Introduction

Over the past decade many theories of first language acquisition have made use of the notion 'Parameter Setting and Resetting' to explain linguistic development (for example Hyams, 1983; 1986). Despite the fact that the idea of Parameter Setting and Resetting is conceptually attractive, it turns out that, to the extent that we can formulate parameters, such as the 'Head-final / head-initial Parameter', or the 'Pro-drop Parameter', they are set extremely early, usually before the onset of speech. Therefore, language development cannot solely be explained by Parameter Setting and Resetting. The question then remains how development is accounted for. A key to solving the so-called 'developmental problem' can be found in the 'Modularity Hypothesis', as first proposed by Fodor (1983). According to the Modularity Hypothesis the language faculty is divided up into a lexicon, a computational system (syntax, semantics, phonology), a pragmatic system and possibly more modules. Uneven development or growth within the separate modules and the interaction between them can explain why children's grammars develop the way they do.

2. Optional marking of specificity

In this paper we argue that development within the pragmatic component of language causes development within syntax. Our developmental hypothesis is stated in (1):

- (1) Specificity is not always grammatically marked in the grammar of 2-year old children.

We propose that this is possible because 2-year olds lack the pragmatic Discourse Rule. The hypothesis in (1) is an extension of a hypothesis by Hyams (1994; 1996), who proposes that finiteness, which is *temporal* specificity, is optionally specified, in order to explain the well-known Root Infinitives in child language, exemplified in (2)¹:

- (2) a. *Dutch*
pappa schoenen wassen
'daddy shoes wash'
ik ook lezen
'I also read' (from Weverink, 1989)
- b. *French*
pas manger la poupée
'not eat the doll'
Michel dormir
'Michael sleep' (from Pierce, 1989)
- c. *German*
Zahne putzen
'teeth brush'
Thorsten das haben
'Thorsten that have' (from Wexler, 1994)

The idea is that if temporal specificity, or finiteness is not marked, the verb does not raise to I to check its finiteness features agreement and tense, resulting in an infinitive. Extending this hypothesis to the nominal system, it is feasible to hypothesize that it is not just *temporal* specificity that is optionally marked in early grammar, but also *nominal* specificity, in a sense to be made precise.

In order to test this claim we chose two syntactic processes which involve specificity, namely object scrambling in Dutch child language, and object clitic placement in Italian child language.

3. Adult Dutch and Italian

Before we turn to the child data, we will first illustrate object scrambling and object clitic placement in adult language. In adult Dutch, objects can occur before and after elements such as (sentential) negation, depending on their interpretation. If an indefinite object follows negation, such as in (3a), it receives a non-referential reading, meaning that the object *een boek* ('a book') can refer to any book. In contrast, if an indefinite precedes negation, such as in (3b), it is understood to be referential, that is, the object *een boek* ('a book') refers to a particular book. An object preceding negation is referred to as a 'scrambled object'.

¹ Root infinitives occur alongside finite sentences within the same stage of development.

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(3) *indefinites*

- a. dat Jan **geen** (= niet + een) boek heeft gelezen - non- referential
that John no (= not + a) book has read
'that John didn't read a book' / 'that John read no book'
- b. dat Jan **een** boek niet heeft gelezen - referential
that John a book not has read
'that John didn't read a book'

Given that definite DPs are referential by definition, we expect that definite DPs only occur in pre-negation position. This expectation is confirmed, as is illustrated by the sentences in (4):

(4) *definite DPs*

- a. dat Hella **het** boek niet gelezen heeft
that Hella the book not read has
'that Hella hasn't read the book'
- b. *dat Hella niet **het** boek gelezen heeft
(sentential negation: *; constituent negation: OK)
that Hella not the book read has

Assuming that definite personal pronouns are also DPs, we expect the same pattern. This is confirmed by the data in (5):

(5) *strong pronouns*

- a. dat Marieke **haar/deze** niet gezien heeft
that Marieke her/this not seen has
'that Marieke didn't see her'
- b. *dat Marieke niet **haar/deze** gezien heeft
(sentential negation: *; constituent negation: OK)
that Marieke her/this not seen has

What about Italian object clitics? Clitics can be characterized as pronominal elements that cannot be stressed, and that have a different syntactic distribution from strong pronouns and full argument DPs (cf. Kayne, 1975; Berendsen, 1986; Zwart, 1990b; Koopman and Sportiche, 1991, among others). However, they have something in common with strong pronouns and full DPs as well, namely, they are referential. The examples in (6) illustrate object clitics in Italian:

(6) *Italian object clitics*

- a. Anna mangia le mele/**le*
Anna eats the apples/them
'Anna is eating the apples/them'
- b. Anna *le*/**le* mele mangia
Anna them/the apples eats
- c. Anna ha mangiato le mele/**le*
Anna has eaten-masc.sg. the apples/*them
- d. Anna *le*/**le* mele ha mangiate
Anna them-fem.pl./the apples has eaten-fem.pl.

As (6b) shows, the full object DP *le mele* ('the apples') cannot occupy the same position as the direct object clitic *le* ('them'). Notice furthermore that Italian object clitics trigger number and gender agreement on the past participle as is shown by the plural feminine ending *-e* on the past participle *mangiate* ('eaten') in (6d).

4. Theoretical framework

Now, what exactly does it mean to be referential? We propose that referentiality is a purely semantic notion and that it is defined as in (7):

(7) *Referentiality (semantic notion)*

A nominal expression is understood to be referential if it has a *fixed referent* in the (model of the) world, meaning that it can be identified by the speaker or by one of the people whose propositional attitudes are being reported.

We furthermore propose that the syntactic counterpart of referentiality is 'specificity', which we define as in (8):

(8) *Specificity (syntactic notion)*

The D-head of a referential nominal expression bears the syntactic feature [+specific].

This implies that the referential objects in the Dutch sentences in (3) - (5) are all equipped with the feature [+specific]. We argue that referentiality and specificity coincide in adult language, but can be dissociated in child language.

To account for the distribution of the object in sentences such as (3) - (6), we propose an analysis based on Sportiche (1992), who unifies the two syntactic processes object scrambling and object clitic placement. Analogous to the WH-Criterion and the NEG-Criterion Sportiche formulates a 'Clitic Criterion' which states that:

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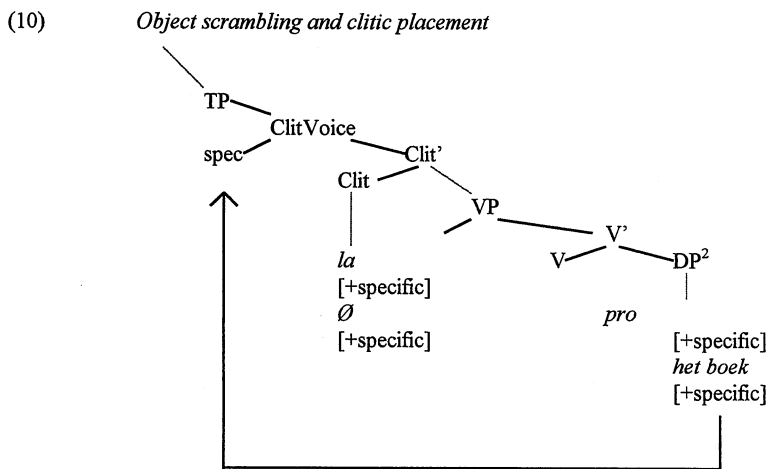
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(9) *Clitic Criterion* (Sportiche, 1992):

At LF:

- (i) A clitic must be in a spec/head relationship with a [+specific] XP
- (ii) A [+specific] XP must be in a spec/head relationship with a clitic

In (10) we illustrate how the Clitic Criterion applies to the syntactic processes of object scrambling and object clitic placement.



As for Clitic Placement, Sportiche proposes that the clitic, which is inherently [+specific], is base-generated in the head of a functional projection just below TP, called 'Clitic Voice', and that an empty object DP, namely small *pro*, moves from its base-generated sister-of-V position to the specifier of Clitic Voice. Because of its pronominal character, *pro* is inherently [+specific], and thus both the [+specific] feature of the clitic and of *pro* are licensed under spec-head agreement within the Clitic Voice. We assume that the finite verb incorporates the clitic when it headmoves to AgrS in order to check its Tense and Agreement features, so that *la+finite verb* end up in AgrS.

Similarly, object scrambling involves movement of an overt object DP such as *the book* to spec Clitic Voice where its [+specific] feature is licensed under spec-head agreement with an empty [+specific] clitic in the head of Clitic Voice.

Although Sportiche's theory elegantly unifies and accounts for object clitic placement and object scrambling over negation, it does not capture all types of object scrambling. In addition to object scrambling over negation, the Dutch object can move over, for instance, temporal adverbs. For reasons of simplicity, we refer to these adverbs as 'high' adverbs and assume they occupy a position at TP level. This is illustrated in (11):

² Although we maintain the (traditional) assumption that the underlying word order of Dutch is SOV we present an SVO tree here in order to accommodate the Italian SVO order.

- (11) a. dat Saskia waarschijnlijk **de postbode** gezien heeft
 that Saskia probably the mailman seen has
 'that Saskia probably saw the mailman'
- b. dat Saskia **de postbode** waarschijnlijk gezien heeft
 that Saskia the mailman probably seen has
 'that Saskia probably saw the mailman'

Contrary to most of the standard literature on scrambling in Dutch and German, we argue that there is a slight difference in interpretation between a definite DP that occurs before the high adverb, as in (11b) and one that follows it, as in (11a), namely, a definite DP preceding the high adverb must have an antecedent in the immediately preceding linguistic discourse, and is therefore old information, whereas a definite DP following it can be new in the discourse. Therefore, a DP such as *the book*, which requires an antecedent in the discourse, sounds odd in post-high adverb position, as is illustrated in (12):

- (12) A: Wat zei je dat Saskia met **het boek** gedaan heeft?
 what said you that Saskia with the book done has
 'What did you say Saskia did with the book?'
- B: a. ??Ik zei dat Saskia waarschijnlijk **het boek** weggegeven heeft
 I said that Saskia probably the book away-given has
 'I said that Saskia probably gave the book away'
- b. Ik zei dat Saskia **het boek** waarschijnlijk weggegeven heeft
 I said that Saskia the book probably away-given has
 'I said that Saskia probably gave the book away'

In order to accommodate specific objects such as the ones in (11) and (12), we extend Sportiche's phrase structures as follows: we rename Sportiche's Clitic Voice 'Specificity Phrase' and we introduce a functional projection above the high adverb, called 'Discourse Phrase' (DiscP). We adopt Sportiche's general spec-head licensing mechanism and propose that specific DPs which do not have an antecedent in the discourse move to spec SpP and that specific DPs which do have an antecedent in the discourse move to spec DiscP. This extended Phrase Structure is provided in (13):

- (13) [AgrSP [DiscP (high adverb)] [TP [SpP [NegP [AgrOP (low adverb)]] [VP [DP V

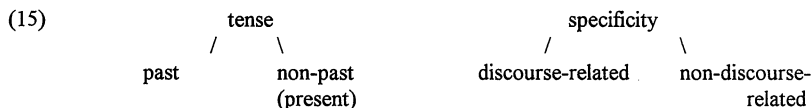
Thus, the Discourse Phrase is the designated position for what we will call the 'discourse-related specific' objects, whereas the Specificity Phrase hosts the 'non-discourse-related specific' objects. In (14) we provide some examples of discourse and non-discourse related specific objects:

- (14) *Discourse-related specific objects:* the tree, the girl, the book etc.
 [+specific] for linguistic reasons:
 antecedent in discourse
- Non-discourse-related specific objects:* the sun, the moon, the president,
 the queen, John
 [+specific] for non-linguistic reasons:
 accidental properties of the world

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Given this distinction, we can now define what it means to grammatically mark specificity. For the sake of clarity, we draw an analogy with the various values of tense, as is schematized in (15):



Just like tense can take on the two values past and non-past (or present), specificity can take on the values 'discourse-related' and 'non-discourse-related'. If a verb is neither past nor present, we say that it is not 'tensed', or we could say that Tense is not marked. Similarly, we propose that if the distinction between discourse-related and non-discourse-related is not made, specificity is not marked, that is, the feature is absent. Thus, specificity is formally represented as in either (16a) or as (16b), but never as in (16c):

- (16)
- | | | |
|----|------------------------------------|-------------------------|
| a. | [+specific, discourse-related] | (i.e. <i>the tree</i>) |
| b. | [+specific, non-discourse-related] | (i.e. <i>the sun</i>) |
| c. | *[+specific] | |

5. Child Dutch and Italian

5.1 Predictions

How does all this relate to child language? The hypothesis that specificity is optionally marked in the grammar of 2-year olds and the unified theory of object scrambling and object clitic placement as just proposed, yield the predictions formulated in (17):

- (17) *Predictions regarding child language:*
- (i) initially, object scrambling does not always take place in obligatory contexts in Dutch child language;
 - (ii) initially, object clitic placement does not always take place in obligatory contexts in Italian child language;
 - (iii) if both object scrambling and object clitic placement involve the same mechanism and functional projections, we expect similar developmental patterns for both phenomena in child language.

5.2 Methods

In order to test these predictions, we carried out an elicited production task with 49 Dutch children between the ages of 2 and 7 years old and with 35 Italian children between the

ages of 2 and 6. As a control group we also tested 23 Dutch and 15 Italian adults. Detailed information about the subjects is given in (18):

(18) *Dutch subjects*

Age group	Age	Mean age	# of girls	# of boys	total #
2	2;4-2;11	2;8	4	3	7
3	3;0-3;11	3;6	6	7	13
4	4;0-4;11	4;5	6	5	11
5	5;2-5;11	5;6	4	6	10
6	6;0-6;10	6;4	3	5	8
total chn.			23	26	49
adults	>19		11	12	23

Italian subjects

age group	age	mean age	# of girls	# of boys	total #
2	2;1-2;6	2;5	2	3	5
3	3;1-3;11	3;5	4	7	11
4	4;1-4;10	4;6	4	6	10
5	5;0-5;11	5;6	3	6	9
total chn.			13	22	35
adults	>19		7	8	15

As for Dutch, we tested scrambling of definite DP, proper name, indefinite and clitic objects. More details about the experimental conditions are provided in (25); an example of a scenario is given in (19):

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(19) *Conditions, types and tokens Dutch experiment*

	def. DP	proper name	spec. indef.	nonsp. indef.	clitic
low adverb	3	3	3	3	3
negation	3	3	3	3	3
high adverb	3	3	3	3	3

(20) *Scenario scrambling - Dutch (definite DP over negation)*

- Cookiemonster: **Kijk, een boom. Wat een rare boom, die ga ik niet inkleuren, hoor.**
look, a tree. what a funny tree, that go I not in-color
'Look, a tree. What a funny tree, I'm not going to color that tree.'
- Tom the Tiger: **De boom gaat Koekiemonster WEL inkleuren**
the tree goes Cookiemonster 'yes' in-color
'Cookiemonster is going to color that tree'
- Child: **Nee!**
no
'No!'
- Experimenter: **Nee he? Vertel jij maar eens aan die domme Tom de Tijger**
wat Koekiemonster echt gaat doen
no huh? tell you 'maar eens' to that silly Tom the Tiger what
Cookiemonster really goes do-INF
'No, right? Why don't you tell silly Tom the Tiger what
Cookiemonster is really going to do?'
- Child: **Koekiemonster gaat de boom NIET inkleuren!**
Cookiemonster goes the tree not in-color
'Cookiemonster is NOT going to color the tree'
***Koekiemonster gaat NIET de boom inkleuren!**
Cookiemonster goes not the tree in-color

In the Italian experiment we tested placement of the object clitic in several constructions, such as present tense and *passato prossimo* constructions. More details about the experimental conditions are provided in (21); an example of a scenario is given in (22):

(21) *Conditions, types and tokens Italian experiment*

	present tense	restruct. verbs	passato prossimo	
			with agreement	w/o agreement
single clitic	3	3	5	1
double clitic	3	3	2	1

(22) *Scenario with simple present tense, single object clitic*

- Exp.: **Guarda. Qui abbiamo Pluto, e la sirenetta, e un pettine.**
Guarda, che bei capelli biondi che ha la sirenetta! Sono un po'
in disordine. Perciò, Pluto pettina la sirenetta.
 'Look. Here we have Pluto, and the Little Mermaid, and a comb.
 Look, how beautiful and blond the Little Mermaid's hair is! It's a
 bit messed up, though. Therefore, Pluto is combing the Little
 Mermaid's hair.'
- Raja: **Io so cosa succede! Pluto lava la sirenetta!**
 I know what happens. the monkey washes the doll
 'I know what's happening! The monkey is washing the doll!'
- Child: **No!**
 'No!'
- Raja: **Perchè? Pluto non lava la sirenetta?**
 why. Pluto not washes the Little Mermaid
 'Why? Is Pluto not washing the Little Mermaid?'
- (Exp.: **Allora, dillo tu a Raja: cosa fa Pluto alla sirenetta?**)
 'OK. Now you tell Raja what Pluto is really doing to the Little
 Mermaid.'
- Child: **la pettina**
 it-OBJ (s/he)combs
 'He's combing her'

5.3 Results and discussion

The results regarding scrambling of full objects show that prediction (i) is borne out. As you can see in Table I, the Dutch 2-year olds scramble definite objects over negation only 30% of the time, and proper names 31%, as opposed to adults 96% and 99%, respectively. As for the indefinites, recall that scrambling of indefinites is not obligatory, since they can be either specific or non-specific. Despite this fact, there is a significant difference between the rate the 2-year olds scramble indefinites, namely 33% and the rate adults scramble indefinites, namely 66%. In sum, object scrambling is optional for Dutch 2-year olds, even in obligatory contexts of adult language. The 3-year olds on the other hand, show an enormous jump towards adultlike performance, suggesting that most of the development takes place around the age of 3.

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Table I: Proportions of full object scrambling over negation

age	definite DP		proper name		indefinite	
	scr	non-scr	scr	non-scr	scr	non-scr
2	30% (7)	70% (16)	31% (6)	69% (13)	33% (6)	67% (12)
3	72% (26)	28% (10)	73% (22)	27% (8)	56% (27)	44% (21)
4	82% (31)	18% (7)	79% (22)	21% (6)	57% (20)	43% (15)
5	76% (26)	24% (8)	86% (25)	14% (4)	59% (24)	41% (17)
6	83% (24)	17% (5)	86% (18)	14% (3)	57% (17)	43% (13)
adults	96% (105)	4% (4)	99% (67)	1% (1)	66% (65)	34% (33)

In (23) we give some examples of non-scrambled definite DP, proper name and indefinite objects by the 2-year olds:

- (23) a. Ernie gaat niet **de banaan** opeten (M 2;4)
Ernie goes not the banana up-eat
'Ernie is not going to eat the banana'
- b. Pluto gaat niet **Nijntje** uitknippen (M 2;4)
Pluto goes not Nijntje out-cut
'Pluto is not going to cut out Nijntje'
- c. Ernie gaat niet **twee bomen** uitknippen (M 2;4)
Ernie goes not two trees out-cut
'Ernie is not going to cut out two trees'
- d. Bert gaat niet **het snoepje** opeten (A 2;6)
Bert goes not the candy up-eat
'Bert is not going to eat the candy'
- e. Bert gaat niet **Donald Duck** uittekenen (A 2;6)
Bert goes not Donald Duck out-draw
'Bert is not going to draw Donald Duck'

Another result concerns strong pronoun objects. In the adult language these *must* scramble. However, for the 2-year olds the strong pronominal objects often follow negation. The proportions of the responses including negation and a pronominal object are presented in Table II:

Table II: *Proportions of pronominal object placement with respect to negation*

age	personal pronoun		demonstrative pronoun	
	pre-negation	post-negation	pre-negation	pro-negation
2	33% (2)	67% (4)	17% (1)	83% (5)
3	95% (20)	5% (1)	78% (7)	22% (2)
4	100% (27)	0% (0)	100% (4)	0% (0)
5	100% (22)	0% (0)	100% (3)	0% (0)
6	100% (18)	0% (0)	100% (1)	0% (0)
adults	100% (12)	0% (0)	100% (24)	0% (0)

Table II shows that the Dutch 2-year olds place personal pronouns correctly (pre-negation) only 33% of the time, and demonstrative pronouns at a rate as low as 17%, as opposed to 100% for the adults, differences that are significant at a level of $p < .01$. Some examples of non-scrambled pronouns are given in (24):

- (24) a. Bert gaat niet **het** uitknippen (M 2;4)
 Bert goes not it out-cut
 'Bert is not going to cut it out'
- b. Tom ging niet **het** goed zeggen (C 2;9)
 Tom went not it well say
 'Tom was not going to say it correctly' =
 'Tom didn't say it correctly'
- c. Donald Duck gaat niet **haar** uitknippen (C 2;9)
 Donald Duck goes not her out-cut
 'Donald Duck is not going to cut her out'
- d. De dinosaurus gaat niet **mij** opeten (F 2;11)
 the dinosaur goes not me up-eat
 'The dinosaur is not going to eat me up'
- e. Bert gaat niet **hem** uitknippen (F 2;11)
 Bert goes not him out-cut
 'Bert is not going to cut him out'

Again, the jump towards adultlike performance with respect to the placement of object pronouns by the 3-year olds is striking. Thus, the developmental pattern of full DPs is reflected in the developmental pattern of pronominal object DPs. This further confirms our first prediction that initially object scrambling is optional in obligatory contexts and that age 3 is a transitional point.

Our second prediction - that initially object clitic placement does not always take place in Italian child language - is also supported.

Table III: *Overall proportions of overt and omitted direct object clitics*

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age	overt clitic	omitted clitic
2	26% (22)	74% (63)
3	81% (179)	19% (43)
4	100% (237)	0% (0)
5	100% (227)	0% (0)
adults	100% (439)	0% (0)

Table III indicates that across sentence types Italian 2-year olds produce overt object clitics only 26% of the time as compared to the 100% adult rate, a difference that is statistically significant at a level of $p < .01$. The 3-year olds display a big quantitative leap producing overt object clitics 81% of the time. The difference in performance between the 3-year old Italian children and the Italian adults does not reach statistical significance. Some examples of responses without direct object clitics are given in (33). For reasons of clarity, the input sentence is provided as well.

- (25) a. Raja: Mamma orsa ha picchiato le rane!
mommy bear has smacked the frogs
'Mommy bear smacked the frogs!'
Child: no, ha lavato! (M 2;1)
no has washed
'No, (she) washed'
- b. Raja: Il coniglio lava il pupazzo!
the rabbit washes the puppet
'The rabbit is washing the puppet!'
Child: no, pettina! (A 2;5)
no combs
'No, (she) is combing'
- c. Raja: Topolino picchia Minnie!
Mickey Mouse smacks Minnie
'Mickey Mouse is smacking Minnie!'
Child: no, pulisce! (E 2;6)
no cleans
'No, (he) is cleaning'
- d. Raja: La tigre vuole picchiare la coniglietta!
the tiger wants to smack the rabbit
'The tiger wants to smack the rabbit!'
Child: no, vuole lavare (R 2;6)
no wants to wash
'No, (she) wants to wash'

The omission of direct object clitics follows immediately from our hypothesis that specificity is optionally marked in early grammar. Namely, if the empty object *pro* does not have a [+specific, ...] feature, it will not move up to spec SpP. Consequently, the specificity of the clitic in the head of SpP cannot be licensed and therefore the clitic cannot be spelled out.

In sum, both the object scrambling and the object clitic placement data provide support for our hypothesis that (nominal) specificity is optionally marked in the grammar of 2-year olds. Furthermore, the data show that both object scrambling and object clitic placement are close to adultlike by age 3. This confirms our third prediction, namely that if object scrambling and object clitic placement involve the same mechanism and functional projections, we expect similar developmental patterns for both phenomena in child language.

Although the analysis just proposed accounts for the syntactic differences between early child grammar and adult grammar, it is not immediately clear how children interpret object DPs without a [+specific] feature. We argue that these object DPs are interpreted referentially, just as in adult language, but that children arrive at this referential reading in a different fashion than adults. Let us first consider the adult interpretive mechanisms.

We follow Hyams (1994;1996) and Hoekstra and Hyams (1995) in the claim that every DP contains a D-chain, coindexing the Noun, the Determiner and an operator in spec DP, which makes referentiality visible. This is schematized in (26):

- (26) *D-chain*
 [DP Op_i [D_i the [N_{UMP} [NP [N_i tree]]]]]

In addition, we propose that there is a Referentiality-Chain, or an 'R-Chain', which coindexes the object DP with an operator in spec CP, which hooks up the object DP to the relevant antecedent in the discourse. This is illustrated in (27):

- (27) *R-chain*
-

This mechanism - which we refer to as 'grammatical interpretation' - accounts for the referential interpretation of 'normal' definite DPs, such as *the tree*, *the girl*, *the book*.

On the other hand, the much smaller, and more exceptional class of definite DPs such as *the sun*, *the president*, *John* refer to their referents in the (model of the) world directly, that is, without an R-chain, as illustrated in (28):

- (28) *No R-chain* - direct interpretation

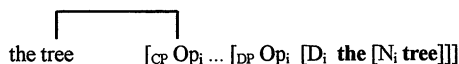
[CP [DiscP ... [SpP [DP Op_i ... [D_i the [N_i sun]]]]]]

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Returning to the child data, we propose that 2-year old children have both options to interpret definite DPs such as *the tree*. This is illustrated in (29) and (30), respectively.

(29) *grammatical interpretation*



(30) *direct interpretation*

[DP Op_i [D_i the [N_i tree]]]

If they choose to mark specificity on the DP, interpretation takes place in an adultlike fashion, as in (29). However, if the [+specific] feature is absent, the DP is interpreted directly, as in (30), similar to the way adults interpret DPs such as *the sun*.

Now, why do 2-year old children have access to both interpretive options for DPs such as *the tree*, as opposed to adults to only one? We claim that this is due to a missing rule in the child's pragmatic system, namely the 'Discourse Rule', which is stated in (31):

(31) *Discourse Rule*

Preceding linguistic discourse and knowledge of interlocutor MUST be taken into account.

If children do not have the Discourse Rule, they do not always take the discourse into account. This implies that in the cases in which they do not, they do not distinguish between discourse-related and non-discourse-related, resulting in the absence of the [+specific] feature. Consequently, movement to either the Specificity Phrase or the Discourse Phrase is not motivated and does not take place.

In contrast, adults, who do have the Discourse Rule, always take discourse into account and thus always distinguish between discourse-related and non-discourse-related, resulting in the specification of specificity, and thus movement of the [+specific] DP to SpP or DiscP.

6. Conclusion

Concluding, we have shown that Dutch and Italian 2-year old children optionally mark specificity, resulting in optional object scrambling and optional object clitic placement, but that at the age of 3 children perform roughly adultlike in this respect. We furthermore argued that this development within syntax is due to the acquisition of a rule in the pragmatic system, namely the Discourse Rule. This provides support for an acquisition theory that exploits modularity of language and the interaction between the various language modules - in this case syntax and pragmatics - to explain language development.

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